

CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1 - 31. Cancelled.

32 (Currently Amended). The non-naturally occurring AAV according to claim 59, ~~wherein said AAV further~~ which comprises a minigene having AAV inverted terminal repeats and ~~the~~ a heterologous gene operably linked to regulatory sequences which direct its expression in a host cell.

Claims 33 – 42. Cancelled.

43 (Currently Amended). A composition comprising ~~an~~ the non-naturally occurring AAV according to claim 59 and a physiologically compatible carrier.

Claim 44. Cancelled.

45 (Currently Amended). A method of delivering a transgene to a cell, said method comprising the step of contacting the cell with ~~an~~ non-naturally occurring AAV according to claim 59, wherein said rAAV comprises the transgene.

Claims 46 – 58. Cancelled.

59 (Currently Amended). A non-naturally occurring adeno-associated virus (AAV) comprising an AAV9 capsid, wherein the AAV9 capsid is at least 95% identical to the amino acid sequence of SEQ ID NO: 123 over amino acids 1 to 736.

60 (Currently Amended). A non-naturally occurring adeno-associated virus (AAV) comprising an AAV9 capsid, wherein the AAV9 capsid comprises an AAV9 capsid protein selected from the group consisting of:

- vp1 capsid protein, amino acids (aa) 1 to 736, SEQ ID NO:123;
- vp2 capsid protein, aa 138 to 736, SEQ ID NO: 123 ; and
- vp3 capsid protein, aa 203 to 736, SEQ ID NO: 123.

61 (Currently Amended). The non-naturally occurring adeno-associated virus (AAV) according to claim 60, wherein the AAV9 capsid protein is encoded by a nucleic acid sequence selected from the group consisting of:

- vp1, nucleotides (nt) 1 to 2211;
- vp2, nt 411 to 2211; and
- vp 3, nt 609 to 2211;

wherein the nucleotides numbers are of AAV9, SEQ ID NO: 3.

62 (Currently Amended). A composition comprising an non-naturally occurring AAV according to claim 60 and a physiologically compatible carrier.

63 (Currently Amended). A method of delivering a transgene to a cell, said method comprising the step of contacting the cell with an AAV according to claim ~~65~~ 60, wherein said ~~AAV~~ minigene comprises the transgene.

64 (Currently Amended). The method according to claim 63 45, wherein the transgene is selected from the group consisting of: low density lipoprotein (LDL) receptor, high density lipoprotein (HDL) receptor, the very low density lipoprotein (VLDL) receptor and a scavenger receptors.

65 (Currently Amended). An adeno-associated virus (AAV) comprising an AAV9 capsid, wherein the AAV9 capsid is at least 95% identical to the amino acid sequence of SEQ ID NO: 123 over amino acids 203 to 736 and wherein said AAV further comprises a minigene having AAV inverted terminal repeats and the heterologous gene operably linked to regulatory sequences which direct its expression in an host cell.

66 (Previously Presented). The adeno-associated virus according to claim 65 wherein the AAV capsid is at least 95% identical to the amino acid sequence of SEQ ID NO: 123 over amino acids 203 to 736 and at least 90% identical to the amino acid sequence of SEQ ID NO: 123 over amino acids 1 to 736.